

A Study on the Usage of Smart Phone for E-Commerce in Bengaluru

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Abstract

There are many people online on smart phones who are at any time potential consumers in the online market. Since there are enough providers, the most important thing for organisations is to learn the consumer's immediate requirements in this competitive business environment. Customer behaviours are influenced by diverse factors such as culture, social class, references group relation, family, income level independency, age, gender etc., and so they do show different customer behaviours.

Smart phones help purchase and local search provides consumers anytime, their feasibility to information is via internet. Awareness of purchase and local search is on the rise with consumers, opening new opportunities for brands and vendors to exploit the power of the mobile channel. Before the advent of internet- on- smart phones, net search used to be a purely desktop affair, but it is not so now.

The objective of the study is to know about the usage of Smart Phone for E-Commerce activities, to analyse the impact on purchasing products through Smart Phone and to understand the future prospects of online sales through Smart Phone. The result of this study would contribute marketers who intend to penetrate the market probably in the urban India and would help maintain loyalty of their customers.

Key Words: Smart Phone, E-Commerce, Retailing, Local Search, Purchase

Introduction

The phenomenal growth of internet use on smartphone is far surpassing than that of the fixed-internet users. E-Marketer estimates that in 2008 there were more than twice as many mobile internet users (106 million) as fixed-internet users (40.7 million). By 2018, mobile users (298 million) are expected to triple fixed users (85.8 million).

Recently mobile loyalty company SessionM randomly surveyed 12,000 selected US smartphone users on their mobile shopping behaviours. The company found 85 percentage of respondents averred their m-commerce buying was steady or had increased compared with the previous year. While roughly 15 percentage opined mobile buying had increased "significantly," personal data security and/or poor user experiences (e.g., product images too small) were reported barriers to further growth of mobile e-commerce.

Another top in-store smartphone behaviour, not on this list, is seeking coupons or deals. Though, not in top three above, in-store deal-seeking is consistently found to be one of the top smartphone uses (No clarity in idea). Two important marketing opportunities for retailers were identified (or reinforced) in the data, opportunity surrounding in-store push notifications about deals/offers (57 percentage were more likely to shop at a store if available) and loyalty programs (76 percentage would be more likely to shop at a store if available).

As indicated, the SessionM data confirm a well-established, growing body of consumer survey and behavioural data around in-store smartphone

usage. Yet most retailers have been painfully slow to take advantage of it (rather, they cry "showrooming"). Deals and loyalty programs are two reasons for shoppers to download a retailer app, which can then get them to opt-in to notifications. Mobile payments are another reason, but in most cases, that option isn't ready. Retailers must see in-store smartphone usage as an extension of the traditional retail experience and adapt their apps, mobile sites and in-store signage (and other marketing) to take account of and leverage smartphone shopper behaviour. Believe it or not, eight years in, there's still an opportunity to be a mobile "early adopter" in retail.

Review Literature

20th century has been an era that, social, economic and political changes have occurred at unprecedented speed. Along with the globalisation, disappearance of the borders, technologic developments and unavoidable passing to the information the society as a whole, has undergone a sea change. Especially, in the later part of the 20th century with rapid changes in the information technology, computers have become an integral part of life. In the information era, the Internet has become more and more necessary. With the advancement in the information and communication technologies over the years, computers' capacities have grown rapidly and local networks have become a network that connects all the computers in the world, the Internet.

Electronic commerce, also referred as e-commerce is defined by Oxford Dictionary as 'commercial transactions conducted electronically on the Internet'. Another definition made by Financial Times as a buying and selling activity over the Internet. To sum up e-commerce can be defined as the buying, selling and exchanging of goods and services through an electronic medium (the Internet) by businesses, consumers and other parties without any physical contact and exchange.

'The rise of these new information and communication technologies and of Internet users, introduced a new marketing reality' (Xavier

and Pereira, 2006). This new presence changes the relations between the players. Furthermore, businesses have realised the relevance of the Internet and it has become that e-commerce in the business context, for most companies, can be seen as a complement (Shaw, 2006). The importance of the competitive power and superiority has come to foreground and organisations' understanding of competition has changed dramatically. In today's world, businesses use electronic commerce channels to communicate with customers and to increase competitive advantage (Lee and Lin, 2005).

So many companies now operate on the Internet. Some of companies only have a web presence, called as click-only dot-coms, such as Amazon.com and Expedia.com. These companies sell products and services directly to consumers via the Internet. On the other hand traditional companies also enhance their marketing strategies to adopt today's requirements and create their own online sales channels and become click-and-mortar companies. Nowadays it is hard to find an organisation that doesn't have a web presence (Kotler and Armstrong, 2012).

Considering the characteristics of the buying and selling parties E-commerce has been divided into four categories. These categories are: business to business (B2B), business to consumer (B2C) consumer to consumer (C2C) and consumer to business (C2B) (Korper and Ellis, 2001).

The emergence of e-commerce began with two organisations. Amazon.com, Inc and eBay Inc. have been the early leaders of the e-commerce industry (Slideshare, 2011). Both are now offering different types of products to different parts of the world. Since then, Amazon and Ebay have become the icons of the new economy. Visiting their Web sites has somehow become part of our routine (Shaw, 2006).

Amazon is founded by Jeff Bazos in 1994 in Washington and the website has launched in 1995. They started with an online book store. Amazon also provided to consumers to order hard-to-find books as easily as best sellers (Postrel, 1996). Amazon also developed systems; such as 'Search Inside the Book' and '1-click®

Shopping' (Amazon, 2012) which make them pioneers of innovations. Being first in the market provided to Amazon.com a trusted brand name (Economist, 2000).

Advance in wireless technology has increased the number mobile device users. Nowadays, they have become a part of our lives. This trend has provided with an opportunity to shop online via mobile devices, such as smart phones, e-readers, tablets, etc. (Hillman et. al, 2012). Moreover, it's no secret anymore that with the developments of mobile devices, smartphones or tablets, online shopping have become more convenient (Judith, 2012). Mobile devices 'also contributed to the increase in sales' (Ninjas, 2012). These innovations of the technology more likely encourages consumers buy online.

Recently, with the development of the Internet, many entrepreneurs have tried to create and provide new online businesses to benefit the advantages of the Internet. Furthermore, the internet environments affected the businesses and have forced them to include themselves in this environment. With the emergence of group buying system both businesses and consumers were benefitted. Group buying web sites first appeared in 1998 (Hackl, 2004) and developed rapidly. The main idea is that, consumers can use their bargaining power to decrease the prices and on the other hand suppliers can 'diminish their cost of recruiting customers' (Kauffman, et al., 2010). With online group buying system individuals enable to purchase products or services with a daily deal and for many different types (Erdogmus and Cicek, 2011). Here, price is the mainly element that affects and maybe changes a consumers' decision.

The traditional way of shopping has become insufficient for individuals thanks to technological innovations. Individuals now prefer easy ways to reach brands and stores and it can be said that 'The Internet has fundamentally changed customer's notions of convenience, speed, price, product information and service. As a result, it has given marketers a whole new way to create value for customers and build relationships with them' (Kotler and Armstrong, 2012).

It is not a secret that the primary goal of business is to sell. For commercial activities, analysing consumers' behaviours is crucial (Deaton and Muellbauer, 1980, Solomon, 2006, Wright and et al., 2008) and since there is no face-to-face interaction in online businesses, it becomes more important to understand key features of consumer behaviours. Rogan (Nazir, et al., 2012) indicates the importance of the relationship between the marketing strategy and the behaviour of consumer. He illustrates that 'the strategy is about increasing the probability and frequency of buyer behaviour and requirements and to succeed in doing this is to know the customer and understand the consumer's requirements.

The study by SessionM states that, 90 percentage of respondents said they had made a retail purchase in the past 90 days. The great majority (73 percentage) made so in a traditional, physical store. Roughly 53 percentage agreed that the in-store experience was still superior to online/mobile shopping. However, confirming the findings of many earlier surveys, the overwhelming majority (90 percentage) said they use their smartphones in stores while shopping. The top activities on smartphones while in-stores are, Price comparisons - 54 percentage, looking up product information - 48 percentage and checking reviews online - 42 percentage.

Objectives

- To study on the usage of Smart Phone for E-Commerce activities.
- To analyse the impact on purchasing products through Smart Phone.
- To understand the future prospects of online sales through Smart Phone.

Research Methodology

- Study Area: The study area for the research was held in Bengaluru.
- Sample Size: The sample size for the study was 100 respondents.
- Sampling Technique: The sample techniques selected through the structured questionnaire was random sampling.

- Source and Type of Data: Primary and Secondary data are the sources of data were collected from the respondents through interview, meeting, observation, earlier published journals, research papers and online articles.
- Research Instrument: Questionnaire was the main instrument used in data collection.
- Data Collating/Processing: The data collection was then collated and analyzed using SPSS package.

Analysis and Interpretation

Table No. 1: Demographic Characteristics

Gender		
Options	Frequency	Percentage
Male	63	63.0
Female	37	37.0
Total	100	100.0

Occupation

Options	Frequency	Percentage
Doctors	25	25.0
Engineers	25	25.0
Self Employed	25	25.0
Freelancers	25	25.0
Total	100	100.0

Annual Income

Options	Frequency	Percentage
Below 5 Lakhs	60	60.0
5 to 10 Lakhs	35	35.0
More than 10 lakhs	5	5.0
Total	100	100.0

Source: Primary Data

From the above tables we can learn that 63% of the respondents were male and 37% of the respondents were female. From occupation we can learn that 25% were doctors, 25% engineers, 25% self-employed and the remaining 25% freelancers. According to the annual income 60% of the respondents earned below Rs. 5 lakhs per year, 35% of the respondents earned Rs. 5 to 10 lakhs per year and only 5% of the respondents earned more than Rs. 10 lakhs per year.

Descriptive Analysis

Table No. 2: Use of Internet on Smart Phone

Options	Frequency	Percentage
No internet on phone	4	4.0
Have internet but not using	8	8.0
Have internet but use it rarely	20	20.0
Have internet and use it often	68	68.0
Total	100	100.0

Source: Primary Data

From the table it can be learnt that majority of the people who have a smart phone use internet. The table shows that 68% of the respondents use internet in smart phone, 20% use it rarely, 8% have internet but they do not use it and 4% of the respondents do not have internet in their smart phone.

Table No. 3: Reason for using Smart Phone for Purchase

Options	Frequency	Percentage
Low Price	11	11.0
High Convenience	47	47.0
Quick Delivery	16	16.0
Serviceability	7	7.0
Other Specific Reasons	19	19.0
Total	100	100.0

Source: Primary Data

From the table we can learn that the respondents use smart phone to purchase products because it is convenient to them, then because of its quick delivery and the price being competitive.

Table No. 4: Information for Retail Products

Options	Frequency	Percentage
Opinion of friends and relatives	53	53.0
Online reviews	34	34.0
Google	7	7.0
Social networking sites	3	3.0
Others	3	3.0
Total	100	100.0

Source: Primary Data

From the table we learn that majority of the respondents before purchasing the product get information from their relatives, based on online reviews, through Google search and also through social networking sites.

Table No. 5: Using Smart Phone to give Reviews

Options	Frequency	Percentage
Never post a review	24	24.0
Occasionally	51	51.0
Multiple times a week	25	25.0
Total	100	100.0

Source: Primary Data

From the table we learn that majority of the respondents post reviews occasionally, 25% of the respondents are active and they post multiple times a week and 24% of the respondents never post any.

Table No. 6: Searching for Local Information

Options	Frequency	Percentage
Ask friends or relatives	72	72.0
Ask neighbours	4	4.0
Ask any one on the street	7	7.0
On Smart Phone	17	17.0
Total	100	100.0

Source: Primary Data

From the table we learn that 72% of the respondents ask their friends and relatives for any information, 17% do use smart phone, 7% ask people on the road and just 4% ask their neighbours.

Factor Analysis

Use of Smart Phone for various purposes

Table No. 7: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.680
Bartlett's Test of Sphericity	Approx. Chi-Square	292.228
	df	28
	Sig.	.000

Source: Primary Data

Based on the above output, the KMO = 0.680. This shows that the degree of common variance is quite high; therefore factor analysis can be conducted. The Chi-square value of Bartlett's Test of Sphericity is 292.228 and the significant value is 0.000, indicating that the data is suitable for factor analysis.

Table No. 8: Rotated Component Matrix

Statements	1	2
Reading Newspapers and Magazines	.801	
Playing Games		.852
Chatting		.651
Research/Education Purposes	.539	
Finding Information about Products	.596	
Shopping	.684	
Communication (E-mail)	.829	
Work/Business Related	.727	

Source: Primary Data

The Rotated Component Matrix indicates, based on factor loadings that these 8 components were reduced to 2 factors. Details of the factors are given in below table.

Table No. 9: List of Factors

Sl. No	Component	TVE	Variable	RCMV
1	Serious	43.514	Reading Newspapers and Magazines	.801
			Research/Education Purposes	.539
			Finding Information about Products	.596
			Shopping	.684
			Communication (E-mail)	.829
			Work/Business Related	.727
2	Non-Serious	15.786	Playing Games	.852
			Chatting	.651

Source: Primary Data

Preference to Purchase through Smart Phone

Table No. 10: KMO and Bartlett's Test

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.562
Bartlett's Test of Sphericity	Approx. Chi-Square	409.031
	df	91
	Sig.	.000

Source: Primary Data

Based on the above output, the KMO = 0.562. This shows the degree of common variance quite high; therefore factor analysis can be conducted. The Chi-square value of Bartlett's Test of Sphericity is 409.031 and the significant value is 0.000, thus indicating data suitable for factor analysis.

Table No. 11: Rotated Component Matrix

Statements	1	2	3	4
Grocery Items				.749
Books				.396
Cosmetics				.447
Education Related Products				.684
Baby Products				.376
Clothes				.017
Computer Products	.127			
Footwear	.812			
Gifts	.687			
Laptops and Computers		.739		
Lifestyle Products			.826	
Music Players			.747	
Storage Devices		.688		

Source: Primary Data

The Rotated Component Matrix indicates, based on factor loadings that these 14 components were reduced to 4 factors. Details of the factors are given below.

Table No. 12: List of Factors

Sl. No	Component	TVE	Variable	RCMV
1	Basic Needs	25.741	Grocery Items	.749
			Books	.396
			Cosmetics	.447
			Education Related Products	.684
			Baby Products	.376
			Clothes	.017
2	Self and Social Needs	11.861	Computer Products	.127
			Footwear	.812
			Gifts	.687
3	Electronic Gadgets	10.544	Laptops and Computers	.739
			Storage Devices	.688
4	Luxury Products	9.235	Lifestyle Products	.826
			Music Players	.747

Source: Primary Data

Reason for using Smart Phone for Purchasing Products

Table No. 13: KMO and Bartlett's Test

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.671
Bartlett's Test of Sphericity	Approx. Chi-Square	172.530
	df	15
	Sig.	.000

Source: Primary Data

Based on the above output, the KMO = 0.671. This shows that the degree of common variance is quite high; therefore factor analysis can be conducted. The Chi-square value of Bartlett's Test of Sphericity is 172.530 and the significant value is 0.000, thus the indicating data suitable for factor analysis.

Table No. 14: Rotated Component Matrix

Statements	1	2
Delivery Time - Speed	.904	
Relevance of Result		.770
User Experience	.618	
Pricing	.825	
Goods Description		.807
Economy Price	.774	

Source: Primary Data

The Rotated Component Matrix indicates, based on factor loadings that these 6 components were reduced to 2 factors. Details of the factors are given in below table.

Table No. 15: List of Factors

Sl. No	Component	TVE	Variable	RCMV
1	Primary Reason	41.867	Delivery Time - Speed	.904
			User Experience	.618
			Pricing	.825
			Economy Price	.774
2	Secondary Reason	22.961	Relevance of Result	.770
			Goods Description	.807

Source: Primary Data

Conclusion

Today, Smart Phones have become an integral part of majority of the people who live in urban limit. Most of the respondents with a Smart Phone do use internet to purchase products and to get more details about the product. People don't purchase products through Smart Phone because of its low price but because of its convenience. The first source of information is friends/ relatives followed by Smart Phone; this makes Smart Phone the second choice. Companies should also be careful with the reviews as the study shows that 51% of the respondents review occasionally. Various factors were identified in the study. With respect to use of smart phone, people use it for two purposes, serious and non-serious activities. The serious activities comprise of reading newspapers and magazines, research and

educational purpose, finding information about products, shopping, e-mail, and for business related activities. Non-serious activities include playing games and chatting.

With reference to using Smart Phone to purchase products, four factors were identified. The first factor refers to the basic needs which comprise of groceries, books, cosmetics, educational products, baby products and clothes. The second factor refers to self and social needs such as computer related products, footwear and gifts. The third factor refers to electronic gadgets like laptops, computers and storage devices. The fourth and final product refers to luxury products such as lifestyle products and music players.

With reference to the reason behind using Smart Phone to purchase products, two factors were identified. The first factor refers to primary reasons, it basically refers to delivery time, user experience, pricing, and economic price. The second factor refers to secondary reasons, such as, getting relevant results of the product search and viewing good description about the same. Thus, the result derived from descriptive analysis and the various factors identified, would help Smart Phone manufacturing companies and e-commerce companies to project their products at a better way by understanding the customer's needs and preferences.

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